

### **ABSTRACT OF THE DISCLOSURE**

A telecommunications network is provided, comprising a plurality of network elements, switching means, and a traffic stream controller, wherein, for each network element, there is provided a set of outgoing paths from the network element to the switching means, one outgoing path carrying traffic streams for each of the network elements, and an incoming path carrying traffic streams from the switching means to the network element, the switching means merges each outgoing path carrying traffic streams for the network element onto the incoming path of the network element, to route traffic streams from each of the network elements to the network element, and routing of the traffic streams to the network element is controlled by the network element using the traffic stream controller. The telecommunications network thus comprises a merged mesh of paths, which fully interconnects all of the network elements. Each outgoing path and incoming path may comprise a permanent virtual path (PVP). For each network element, control of routing of the traffic streams to the network element may comprise control of usage of the incoming path bandwidth of the network element.